

ART. II. — *Some interesting facts founded on Barometrical Observations.* By A. C. GREGORY, Esq., F.R.G.S., &c.

(With a Plate.)

[Read before the Institute, 30th March, 1859.]

*Sydney, 15th Dec., 1858.*

DEAR SIR,

IN the course of the investigations of the variations of the barometer which were necessary for the computation of the altitudes of the various portions of the interior traversed by the late expedition from Moreton Bay to South Australia, there appeared such a remarkable coincidence in the rise and fall of mercury at stations 500 to 1000 miles distant, that I constructed a diagram, exhibiting the comparative changes at Adelaide, Melbourne, Sydney, and Moreton Bay. Knowing the interest you take in all branches of science, I send you a copy of this diagram, as, if placed in the hands of some of your scientific friends who are engaged in meteorological investigations, it may suggest some more perfect and effective system of tracing the course of storms, &c. The reason for thinking that these investigations may be of practical importance is, that all great changes of atmospheric pressure appear to take place at the South-Western stations many hours earlier than at the North-Eastern ones—thus Adelaide precedes Sydney by 12 to 24 hours, and it is not impossible that, with the rapidly extending system of electric telegraphs, timely notice of approaching storms may be transmitted from one seaport to another.

I remain, dear Sir,

Yours very truly,

A. C. GREGORY.

To Dr. FERDINAND MUELLER,

President of the Philosophical Institute of Victoria.